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Dermatologica Sinica

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CORRESPONDENCE

Gardner-Diamond syndrome in a pediatric patient



Dear Editor,

Autoerythrocyte sensitization syndrome, psychogenic purpura, or Gardner-Diamond syndrome (GDS), is a stress-induced autoimmune vasculopathy that most commonly evolves in females 19–72-years old. Up to now, approximately 162 GDS cases have been reported.¹ GDS is rarely seen in the pediatric group, although a few GDS cases in children have been reported.^{2–4} GDS is a dermatosis progressing with recurrent painful ecchymotic lesions triggered by emotional stress. Accompanying psychiatric disorder is usually detected in this group of patients. Henoch-Schönlein purpura (HSP) is a common vasculitic childhood disease that often manifests with purpuric-ecchymotic lesions. In the present case, pediatric GDS is described, wherein HSP was considered in the differential diagnosis.

An 8-year-old female patient was admitted to the Dermatology Department (Ege University Faculty of Medicine, Turkey) with painful ecchymotic plaques on both legs. Patient medical history revealed that bruising on the legs was initially seen when she was 6-years old. Ecchymotic lesions recurred several times in the past 2 years, and regressed spontaneously over 1–2 days according to patient explanation. During the dermatologic examination, multiple painful and edematous ecchymotic plaques were detected on the shins and dorsum of the feet (Figure 1). Systemic examination of the patient revealed general symptoms, including headache, myalgia, fatigue, and malaise, however, arthralgia, fever, and abdominal pain were absent. These symptoms accompanied the bruising in each ecchymotic attack. Also, hyperactivity and hysterical behavior were noticed in this patient. In order to rule out HSP, a skin biopsy was taken and immunofluorescent (IF) examination was performed. IF examination revealed a negative result, and microscopic evaluation of the tissue sample revealed endothelial accentuation, perivascular lymphocyte infiltration, and erythrocyte extravasation mainly at the upper dermis (Figure 2). Antinuclear antibodies (ANA), antineutrophil cytoplasmic antibodies (ANCA), and other autoimmune markers were negative, and hemogram and coagulogram results were normal. HSP was ruled out based on these

results. In order to perform an autoerythrocyte sensitization test, a 5-mL venous blood sample was extracted from the patient into a heparinized tube. Following centrifugation, a 2-mL sample of washed autologous erythrocytes was prepared. Autologous erythrocytes (0.1 mL) were intradermally injected into the left arm of the patient, and 0.1 mL isotonic solution injected into the right arm as a negative control. After 4 hours, painful and edematous bruising appeared on the left arm without any accompanying systemic symptoms. Psychiatric evaluation of the patient revealed obsessive-compulsive disorder, and fluoxetine administration was initiated. Recurrent painful ecchymotic lesions, positivity of an autoerythrocyte sensitization test, and the presence of a related psychiatric disorder led us to consider GDS in this patient. Within 15 days of initiating topical corticosteroid and fluoxetine administration, skin lesions completely faded. The patient was taken into psychiatric custody and no recurrence was observed during the 6-month follow-up.

A diagnosis of GDS was established based on the accompanying psychiatric disorder and positivity of autoerythrocyte sensitization test. The absence of recurrent ecchymotic skin lesions during the 6-month follow-up and after management of the psychiatric disorder further confirmed GDS diagnosis.

GDS is most commonly seen in young female patients, though rarely in the pediatric population. Among pediatric patients with ecchymotic lesions, HSP should be suggested first, however, GDS should also be considered, since GDS could be confused with HSP, as in the presented case. Although HSP-associated systemic symptoms, such as fever and arthralgia, were absent here, general symptoms, such as headache, myalgia, and malaise were observed, which are also symptoms of HSP. The clinical similarities between these two diseases may lead to unnecessary systemic examinations for HSP following each ecchymotic attack. This patient was hospitalized several times in different pediatric centers and examined for systemic HSP involvement. Therefore, in order to avoid misdiagnosis, dermatologists should also evaluate the psychological status of pediatric patients with ecchymotic lesions during dermatological examination, and, if necessary, autoerythrocyte sensitization tests should be implemented.

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Conflicts of interest: The authors declare that they have no financial or non-financial conflicts of interest related to the subject matter or materials discussed in this article.

<http://dx.doi.org/10.1016/j.dsi.2015.10.006>

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Figure 1 Multiple edematous and ecchymotic bruising on shins and dorsum of the feet evolved a few hours before admission to the emergency room.

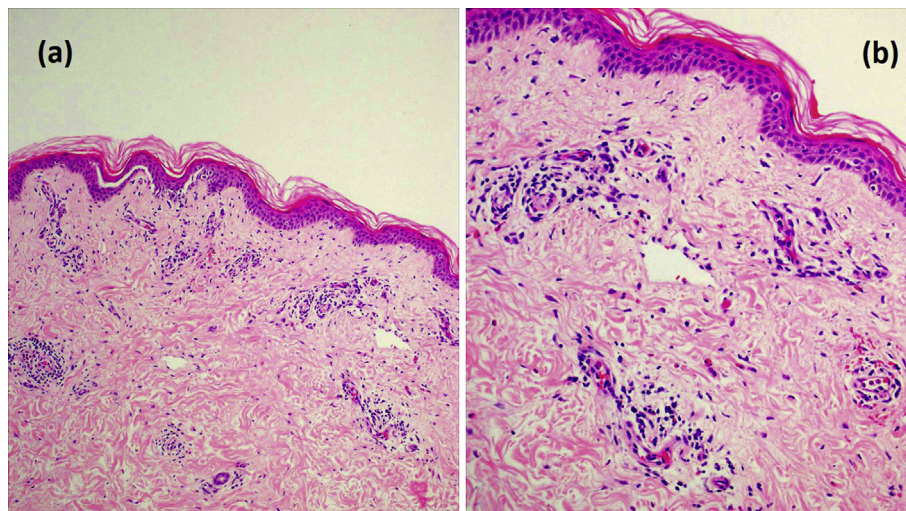


Figure 2 Endothelial accentuation, perivascular lymphocyte infiltration, and erythrocyte extravasation. (A) H&E staining, 100 \times ; (B) H&E staining, 200 \times . H&E = Hematoxylin and Eosin.

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Received: Jul 13, 2015
Revised: Oct 15, 2015
Accepted: Oct 31, 2015